

What is claimed is:

1. A dispersion compensator employing an arrayed waveguide grating comprising:
 - 5 at least one input waveguide,
 - a first slab waveguide,
 - an arrayed waveguide having a plurality of channel waveguides,
 - a second slab waveguide, and
 - 10 a plurality of output waveguides are formed on a substrate,said dispersion compensator further comprising Bragg gratings, each having a dispersion compensating function, formed on said plurality of output waveguides.
- 15 2. The dispersion compensator according to claim 1, wherein said substrate is formed of silicon or glass.
3. A dispersion compensator wherein planar waveguides provided with a predetermined number of Bragg gratings each having a dispersion compensating function are connected to
20 output waveguides of an arrayed waveguide grating.
4. The dispersion compensator according to claim 3, wherein said planar waveguides are a plurality of waveguides formed on a substrate.
5. The dispersion compensator according to claim 4,
25 wherein said substrate is formed of silicon or glass.
6. A dispersion-compensating module comprising:
 - a circulator having an input port, an output port, and a connecting port,
 - the dispersion compensator, according to claim 1 or 3,
30 connected to the connecting port of said circulator, and
 - an optical demultiplexer comprising the arrayed waveguide grating connected to the output port of said circulator.